Legume Bacteria

During the past spring, considerable land has been seeded to alfalfa. A large percentage of the farmers seeding to his crop have made use of the nitro-culture prepared by the Bacteriological Department of he Ontario Agricultural College Owing to the treatment which it is necessary to give the seed before inoculating it with the nitro-culture, some farmers have experienced considerable difficulty in sowing the seed, stating that it was so wet and sticky as to clog in the seeder.

The bacteriologist, Prof. W. C. Edwards, when questioned as to this matter, informed a representative of The Dairyman and Farming World that the difficulty was largely due to the failure on the part of the farmers to distinguish between wet and moist seed. The instructions state that the seed must be moist. Some of those using the culture had taken this to mean wet, and hence the trouble arose in sowing. Professor Edwards states that of the experiments carried on over Ontario last year, 54 per cent. of them were reported as being successful. The Deparment is making preparations for carrying on this work more extensively next year.

Clover Seed a Profitable Crop for the Farmer

As was predicted a year ago, there has been a decided shortage of clover seed this spring. A light crop in Europe, the United States and Canada, caused the crops for this year's trade to be abnormally low, and this resulted in unusually high prices for good seed.

At present the indications are that the foreign exporting countries will not produce more than an average crop of clover seed, and the Ontario supply is likely to be short. In some sections of Ontario, the clover crop was seriously affected by drought last season and the amount available this year for seed production may be limited. Much the same conditions prevails over a considerable portion of the clover seed producing area of the United States; so that unless the yield from the areas which were not seriously affected by the adverse weather conditions last season, is exceptionally heavy, a shortage of seed for next spring's trade is more than probable.

In view of the conditions cited, the advisability of utilizing every available clean field, or part of field, for clover seed purposes, is urged.

In growing clover and grass seed for the market, it is important to bear in mind that the standard of purity demanded in the Canadian trade is higher than it was a few years ago. The demand for seed of first quality has substantially increased. The result of this demand for seed of good quality has been that the seed grower finds impure seed an almost unmarketable commodity, while the production of good clean seed has grown to be a remunerative industry. Hence the necessity of taking every precaution against the presence of noxious weed.

The first step in the production of good clover and grass seed, is to procure the cleanest possible seed. If this is used on clean land and is followed by a thorough system of weeding in the field, the product will be clean. The field weeding is of prime importance, although it is often overlooked. When we remember that every growing weed, if allowed to mature, will produce from 10,000 to 50,000 seeds, it will be readily understood that the removal of these plants must make a great difference in the market value of the seed.

With red clover the best results are obtained by pasturing, or cutting the first crop early. This allows a stronger second growth for the seed crop, and also lessens the danger of damage from the clover seed midge. If the clover is pastured the stock should be turned off early in the season, and the field mowed, in order to cut down the weeds and produce an even second growth.

Alsike and red clover may be harvested with a reaper or a mower, with or without a table attachment If no table attachment is used and the clover is well ripened, it should be cut and raked when the dew is on, in order to prevent shelling.

The clover huller is the best machine for threshing alsike and red clover, but the ordinary grain separator will do the work fairly well if properly regulated. The grain separator will not hull the seed as thoroughly, and in consequence there is more waste of good seed, unless the straw be threshed a second time. But the fact that there is no clover huller available should not deter farmers from saving at least sufficient seed for their own use.—G. H. Clark, Seed Commissioner, Ottawa.

The Evil of Impure Milk

"Impure milk is primarily responsible for the loss of 15,000 of the 30,000 children who die annually in Canada." This was the statement made by Dr. C. J. O. Hastings of Toronto, in a paper on the importance of pure milk read before the session on public health at the convention of the Canadian Medical Association held last week in Ottawa. Dr. Hastings strongly urged a more stringent inspection of the milk supply in every municipality, and he emphasized the paramount importance of the proper pasteurizing of milk in all dairies.

At the conclusion of the paper a committee was formed to wait on the Government with a view to securing more stringent regulations governing municipal inspection of milk.

Certified Milk in United States

Bulletin No. 104 of the Bureau of Animal Husbandry, United States Department of Agriculture, is entitled "Medical Milk Commissions and the Production of Certified Milk in the United States," by Clarence B. Lane, Asst. Chief of the Dairy Division. This bulletin gives a history of the movement which has brought about the organization of milk commissions in a number of cities throughout the country and describes the methods used in the production of what is termed "certified milk." The standards of bacteria allowed varv with the commissions. Of the 20 reporting standards, 13 place the number at 10,000 a cub. cent., one at 20,000 and three at 30,000. One has a standard of 10,000 from October to April and 20,000 from April to October. Another has a standard of 5,000 in winter and 10,000 in summer, and another a standard of 25,000 in winter and 50,000 in summer. The standard for cream in all cases where it is certified at 25,000 a c.c. Twelve commissions report that their dairies have no difficulty in producing milk that is up to the required standards. Five report a little difficulty and one tells that there was no trouble with the bacteria account but that it took several months to reach the fat standard, which was four per cent.

A large part of the bulletin is devoted to information regarding the production of certified milk, most of which has been obtained from actual producers. The work of milk commissions and the production of certified milk not only results in supplying a high grade product for special use but are believed to be important factors in improving the quality of the general milk supply.